

IN THE SPECIFICATION:

Based on the substitute specification filed on July 16, 2001,

Replace the paragraph on page 5, lines 8-14 with the following new paragraph:

Alternatively, the microcup array may be prepared by a process including embossing a thermoplastic or thermoset precursor layer coated on a conductor film with a pre-patterned male mold, followed by releasing the mold. The precursor layer may be hardened by radiation, cooling, solvent evaporation, or other means. This novel micro-embossing method is included in the subject of our co-pending application entitled "An Improved Electrophoretic Display and Novel Process for Its Manufacture", US Patent Application No. 09/518,488, filed March 3, 2000.

Replace the paragraph on page 7, line 26 to page 8, line 6 with the following new paragraph:

The pre-formed microcup array may be laminated or coated to temporarily seal the microcups with a positive-acting photoresist composition, and the sealed microcup array is then imagewise exposed (e.g., using a corresponding photomask) to selectively expose the top openings of a desired subset of the microcups. Known laminating and coating mechanisms may be employed. The exposed portion of the photoresist may then be removed by a developer to open the tops of the selected microcup subset. The term "developer" in this context refers to suitable known means for selectively removing the exposed photoresist, while leaving the unexposed photoresist in place.

Replace the paragraph on page 13, lines 18-28 with the following new paragraph:

The term "imagewise exposure" means exposure of a radiation-curable material or photoresist composition to radiation, such as UV, using one of the methods of the invention, whereby the portions of the material so exposed are controlled to form a pattern or "image" corresponding to the structure of the microcups, e.g., the exposure is restricted to the portions of the material corresponding to the microcup walls, leaving the microcup

D3
CONT.

floor portion unexposed. In the case of selectively opening photoresist on predetermined portions of the microcup array, imagewise exposure means exposure on the portions of material corresponding to the cup opening, leaving the microcup walls unexposed. The pattern or image may be formed by such methods as exposure through a photomask, or alternatively by controlled particle beam exposure, and the like.

D4

Replace the paragraph on page 14, lines 8-19 with the following new paragraph:

The microcup cell array assembly (10) comprises a plurality of cells which are disposed adjacent to one another within a plane to form a layer of cells (12) enclosed between the two electrodes layers (11) and (13). Three exemplary cells (12a), (12b), and (12c) are shown, bounded by their respective electrode plates (11a, 11b, and 11c) (transparent) and (13a, 13b, and 13c) (back plates), it being understood that a large number of such cells are preferably arrayed two-dimensionally (to the right/left and in/out of the plane in Fig. 1) to form a sheet-like display of in any selected area in a and two-dimensional shape. Likewise, several microcup cells may be bounded by a single electrode plate (11) or (13), although, for clarity, Fig. 1 shows an example in which each cell (12) is bounded by separate electrode plates (11 and 13) having the width of a single cell.

D5

Replace the paragraph on page 25, lines 5-14 with the following new paragraph:

Example 6 Microcup Sealing. In this example of the "one-step" process of the invention, approximately 0.05 Milliliter milliliter of UV curable composition comprising 1 wt% of benzil dimethyl ketal (Esacure KB1 from Sartomer) in HDDA (1,6-hexanediol diacrylate from Aldrich) were dispersed into 0.4 ml of a dielectric solvent comprising 0.5 wt% of 2,2,3,3,4,4,5,5, 6,6,7,7,8,8,9,9,10,10,10 – nonadecafluoro-1-decanol (Aldrich) in FC-43 from 3M Company. The resultant dispersion was then immediately filled into an array of microcups. Excess of fluid was scrapped away by a wiper blade. The HDDA solution was allowed to phase separate for at least 30 seconds and cured by UV radiation (10 mw/cm²) for about 1 minute. A hard, clear layer was observed on the top of the microcups and the microcups were sealed.

Replace the paragraph on page 27, line 21 to page 28, line 2 with the following new paragraph:

Example 13 Preparation Of The Radiation-Curable Cup Material. The same as Example 12, except the formulation was replaced by 12 parts of Ebecryl 830, 5.5 parts of SR399 (Sartomer, Exton, PA), 2 parts of HDDA, 0.488 parts of Ebecryl 1360, 0.14 parts of Irgacure 369 (Ciba Specialty Chemicals), 0.02 parts of isopropyl thioxanthone (ITX) from Aldrich, and 10 parts of MEK.

Replace the paragraph on page 29, lines 1-8 with the following new paragraph:

As shown in **Figure 5B**, the exposed areas (**51b**) become hardened and the unexposed areas (**51c**) (protected by the opaque area (**54**) of the mask (**56**)) are then removed by an appropriate solvent or developer to form the microcups (**57**). The solvent or developer is selected from those commonly used for dissolving or reducing the viscosity of radiation curable materials such as methylethylketone, toluene, acetone, isopropanol or the like. The preparation of the microcups may be similarly accomplished by placing a photomask underneath the conductor film/substrate base web and in this case the UV light radiates through the photomask from the bottom.

Replace the paragraph on page 33, lines 15-21 with the following new paragraph:

Following UV exposure, the UV curable material (**84a**) is washed or developed with a suitable solvent which removes the uncured (non-exposed) material (**84a**) to leave the cured material (**84b**) in place, forming the walls of the microcups. The term "solvent" in this context refers to a suitable known means for selectively developing the material by removing the unexposed precursor, while leaving the exposed and cured photoresist in place. Known solvent application mechanisms may be employed.